

BOLETI COLLECTED AT ALSTEAD, NEW HAMPSHIRE,—
ADDITIONAL NOTES.

H. WEBSTER.

As no small part of the interest and profit of studying the fleshy fungi in the field is connected with observing the recurrence or the non-appearance of the fruiting stage in succeeding years, it may be worth while to compare the list of Boleti seen at Alstead, New Hampshire, a year ago¹ with this year's list. Whether owing to greater rainfall, greater heat, or to some less obvious difference in the conditions, the Boletus season was a week or ten days earlier, apparently, than in 1900. On the other hand, in general, Boleti did not fruit so freely, in spite of a rather marked increase in the abundance of a few kinds such as *B. felleus* and *B. bicolor*. By the first of August, all the species collected a year ago had again been seen, and a few days later, when collecting ceased, a glance at the list showed several kinds not seen last year, as well as one or two seen too late to be noted at the time.

Noteworthy for its plentifulness in certain localities, usually hemlock or mixed woods, was *B. albus* Peck. Closer acquaintance with this species brings out its individuality, more strikingly, as well as deepening the conviction that somehow it must be *B. granulatus* in disguise. Its proportions are, on the whole, constantly different, taking the average of many collections. It has longer stems, with smaller caps, than its close relative. Moreover, the color of the granules that stud the white stems is darker, with a purplish, or pale inky tint, foreign to *B. granulatus*. Both species in the young button stage are often covered underneath with drops of moisture, in which some of the coloring matter seems to be suspended.

Boletus piperatus was conspicuous by its rarity. Usually the roadsides and certain spots in deciduous woods are dotted with it. *B. subglabripes*, also, surprisingly plentiful last year, was comparatively scarce. On the other hand *B. bicolor* was frequently found, perhaps in places overlooked in previous years. It is certainly very constant to locality. *B. chrysenteron*, too, was this year familiar in the collecting baskets — not only in the typical form, but also in the dimin-

¹ See RHODORA 2: 20. August, 1900, p. 173.

utive, rose-pink state which seems invariable enough for varietal distinction at least, and is possibly the form that Masee considers equivalent to *B. versicolor* Rost.

B. pachypus was found so often as to seem common. In appearance it agreed well with Fries's plate [Ätl. och Gift. Sv. Pl. LXVIII], though more subdued in tint, as might be expected. No specimens were found with swollen stems. A disagreeable bitterish taste was always present. The spores, as in Gillet's figure, are of the usual Boletus type. Of *B. griseus* several collections were made, looking, as usual, much like bleached and darkened *B. ornatipes*, but almost invariably much heavier, and with much thicker stems. The specimens with yellowish stems are especially calculated to raise doubts.

B. affinis Peck was very abundant in mixed woods. It varied much in the intensity of the brown of the cap, and passed easily into the var. *maculosus* Peck with spotted top. The dark ferruginous stains of the bruised pores, and the bright ochraceous color of the old pore surface were very constant. Some specimens showed the upturned margins and convex tube surface noted by Mr. Peck.

B. luridus was extraordinarily abundant. Occasionally it had the dark intense colors of the descriptions and plates, but was usually paler, and soon faded to dingy orange. Few colors are more striking among fungi, than the rich red or purple of the young pore surface of this Boletus.

B. gracilis Peck was occasional. It is like a slender delicate form of *B. scaber* with pores the color of those of mature *B. felleus*. It was found here and there one, always unexpectedly.

Of species unrecorded last year, the most interesting for its beauty and apparent rarity is *Boletus Ravenelii*. This was found first late in July, growing sparingly among ferns on the raised border of a sphagnum bog in Langdon, a little north of the Cheshire county line. A few days later another collection was made on a rocky hillside in mixed woods in Alstead. The fruits in both cases were not fully developed, but all the more beautiful for that reason, for the veils were unbroken. The bright sulphur yellow of the buttons makes them striking objects, especially in a green setting. Of somewhat less interest is *B. variipes* Peck. A small collection of this, part of which was seen by Mr. Peck, was made in 1900 and more was found this year. It is not a striking species. Another addition to the list is *Strobilomyces strobilaceus*, which was found too late

for mention last year. This year it was conspicuous in early August in various places.

The thirty-three species of Boleti so far seen at Alstead, besides a few forms not yet satisfactorily placed, are to be found fruiting almost at the same time. In fact, a year ago, twenty-five species were assembled in one day's collecting. As the localities where each kind may be expected with certainty become better known, it may well be possible in a good season to bring all the July and August species together in a fresh state.

NEW STATIONS FOR JUNCUS SUBTILIS.

M. L. FERNALD.

IN September, 1897, a very slender strongly proliferous *Juncus* was found in abundance in shallow water of Mattawamkeag Lake, Aroostook County, Maine. Except for its nodulose leaves and crimson color the plant resembled the well-known floating state of *Eleocharis acicularis*; and as is usually the case with the submersed *Eleocharis* the *Juncus* was entirely sterile. Subsequently the plant was collected in pools by the St. John River at Van Buren, but at this station only sterile specimens were seen.

On the tenth of August last (1901) the same slender floating form of the plant was found in a quiet pool or "bogan" of the St. John River at Fort Kent, Maine. All the submersed plants were sterile, but those which had become stranded upon the muddy shore showed a tendency to flower. These stranded individuals were strongly repent; and they so closely resembled the matted plants of *Ranunculus Flammula*, var. *reptans*, with which they grew, that only the most back-breaking and eye-straining scrutiny would reveal them. The combined search of Mr. E. F. Williams, Dr. B. L. Robinson and the writer during a large part of the afternoon and much of the next forenoon was rewarded by perhaps sixty fertile plants. Of these, however, only a small proportion were yet in flower, and none were in fruit.

A comparison of the flowering material collected at Fort Kent shows it to be identical with the plant found in 1871 by the late Charles E. Smith at the margin of Brassua Lake, Somerset County,